

DOCTOR DIXON'S LIFE AND SERVICES TO THE ACADEMY.

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An institution such as this Academy demands the services of many types of men, and of these three seem to stand out most prominently before us. There is the student of the Natural Sciences, entirely absorbed in his researches, who sheds glory upon the society by his discoveries; the benefactor, through whose generosity these researches are made possible; and the executive, the man of affairs under whose direction the institution is developed.

One of these is equally as important as the other in the welfare of the institution, and lacking any one of the three, successful development is impossible.

It is to the last category that SAMUEL GIBSON DIXON primarily belonged, and it is his untiring energy and devotion in guiding the development of this institution, as executive Curator and President for nearly a quarter of a century, that constitute his great gift to this Academy.

But great as were his services as executive, he was more than this. Directly or indirectly he filled the role of benefactor as well, by securing the funds which made possible the development of the plant of the Academy from the modest building which housed our collections twenty-five years ago to the commodious museum, library and laboratories of to-day. Then, too, his experience in medical research gave him a sympathetic interest in the work of the staff and influenced him in guiding the development of the institution along the lines of scientific research which was its original province and to which its reputation has always been due.

The extent of Dr. Dixon's services to this institution and through it to science in general is appreciated by few outside of our officers and members. It was his later labors in the field of preventive medicine and sanitation, as Commissioner of Health of Pennsylvania, that brought him his great renown, not only throughout the extent of this Commonwealth but far beyond its borders as well, and have made his name a byword in every household of the State, coupled always with the thought of public health. But the details of this work, by far his greatest achievement, as well as his career in the law and its influence on his later activities, are treated of by others,

and I must confine myself to a consideration of his services to this Academy.

Dr. Dixon was born on March 23, 1851, in the old Gibson homestead on the Schuylkill River below Bartram's Garden, where his family had resided since 1721. His father, Isaac Dixon, a respected merchant of Philadelphia, and his mother, Ann Gibson, were members of the Society of Friends, and it was under the influence of the quiet Quaker environment so characteristic of our city that his early life was spent.

As a boy he attended the Friends' School at Fifteenth and Race streets and the Mantua Academy in Philadelphia, then in charge of Prof. Hastings. He later received instruction from private tutors with the idea of preparing for Harvard University. Failure in health, however, necessitated a rest from his studies, which was followed by a trip abroad. Upon his return home all thought of a college course was abandoned and he decided to devote himself to business and the study of law. He took a course in the Mercantile College of Philadelphia and then entered the law offices of his brother, Edwin Saunders Dixon, and attended the Law School of the University of Pennsylvania, being admitted to the Bar in 1877. He continued his law practice for six years, but the necessary confinement and constant strain of office work proved too much for his constitution and once more he was forced to seek rest.

Realizing the necessity for a permanent change of occupation, he now conceived the idea of devoting himself to the scientific side of medicine—a subject which in spite of his choice of the law as a profession had always possessed a deep attraction for him. With this object in view he entered the Medical School of the University of Pennsylvania in the autumn of 1883 and received his degree of M.D. in 1886. He won distinction in his studies and while still an undergraduate was appointed an assistant demonstrator in physiology under the late Harrison Allen.

An attack of typhoid fever during the closing part of his course nearly forced him to abandon his studies, but with characteristic determination he continued his work and passed his examinations. Almost immediately afterward he sailed for Europe, in an effort to regain his health in rest and change of scene. Returning in 1888 he was appointed Professor of Hygiene at the University and soon after became Dean of the Auxiliary Department of Medicine.

In 1889 he again spent several months in Europe, this time in various medical schools in special lines of study connected with

his college work. He took courses in Bacteriology, a science then in its infancy, under Crookshank at King's College, London, and under Klein at the College of State Medicine in the same city, while he studied also under Pettenkofer at Munich, investigating methods of sewage disposal, purification of drinking water and other hygienic subjects.

His duties at the University soon became irksome to him and he longed for more opportunity for original research. He had in 1889 anticipated Koch in the discovery of the branched form of the tubercle bacillus, and had conceived the possibility of the use of an attenuated culture as a preventive of tuberculosis. In experiment he had actually produced immunity in a Guinea-pig, and further investigation of the problem was absorbing all his attention.

As a result he withdrew from the University and determined to establish a private laboratory elsewhere. Through the suggestion of Dr. Henry C. Chapman he came to the Academy of Natural Sciences. Dr. Dixon was elected a member of the Academy February 25, 1890, and in the autumn of that year was granted the use of a room at the eastern end of the old Race street building, which he fitted up as a laboratory. Here for several years, personally and through assistants, he carried on active bacteriological researches. He took part in the meetings of the Academy, became a member of the Microscopical and Biological Section and was elected Professor of Microscopic Technology. He again visited Europe soon after establishing his laboratory at the Academy and made the personal acquaintance of Koch, Virchow and other noted foreign bacteriologists.

Dr. Dixon's intimate association with the Academy naturally led him to take a deep interest in the affairs of the institution and at the close of the year 1891 he was elected a Curator, becoming executive Curator in 1893 and President on December 31, 1895, retaining both offices until the time of his death.

With the assumption of the duties of executive Curator his personal researches in Bacteriology at the Academy, for the time being, came to an end, and his whole time and energy were devoted to the Academy's affairs and to the business management of a large estate of which he was executor.

At the time that his Curatorship began there had been little change in the arrangement of the museum since the Academy had first moved to its present site in 1876. There was but one salaried man in charge of the collections, and while several departments

were in the care of the members of the sections or of individual volunteers, the preservation of most of the historic material belonging to the institution was a serious problem. Dr. Dixon, assuming the position of executive Curator without salary, took over all the responsibilities of the museum management, instituting many reforms and introducing more businesslike methods. Needless to say almost his entire time was spent at the Academy.

Shortly after his election to the presidency the munificent bequest of the late Robert H. Lamborn became available, and he was by virtue of his two offices able not only to direct the general appropriation of this fund, but also to carry out in detail the further development of the museum, which had long been hampered by lack of means. Gradually additions were made to the museum staff until all of the perishable collections were under the care of salaried specialists. By constantly conferring with the members of the staff he ascertained the needs of the several departments and these, under his direction, were provided for as far as possible. Modern cases both for storage and exhibition purposes were installed and the way opened for the accumulation and systematic arrangement of the extensive study collections which have been brought together in recent years, and which have made the Academy more than ever a Mecca for systematists from all parts of the country.

Later Dr. Dixon, largely through his personal efforts, secured several appropriations from the State with which the museum building was enlarged, improved and rendered fireproof—while a new library and a commodious lecture hall were erected, providing for two other important branches of the Academy's activities. The details of all this constructive work—plans, contracts and specifications—he insisted upon attending to in person, as well as carefully superintending the building operations as they progressed. The provision of a fireproof stack for the safeguarding of the priceless library of the Academy was a matter of the greatest satisfaction to Dr. Dixon, as it has been to all who are acquainted with its riches.

In the extension of public education at the Academy, Dr. Dixon took an earnest interest and through his influence the Ludwick Institute, of which he was a director and later Vice-President, was led to establish a course of free public lectures at the Academy under the direction of the Lecture Committee, primarily for the benefit of school children and teachers, in which popular courses in various branches of natural history are given every year.

A mere summary of developments and improvements in such an

institution as this mean but little unless one is familiar with early conditions and those which we face to-day. Many can no doubt remember the cramped antiquated museum building of twenty-five years ago—the scarcity or absolute lack of study material and a single Curator in charge, who from force of circumstances could be little more than a Curator. From this you have seen the development of a great modern museum, with an enormous research collection and a competent staff of specialists constantly engaged in its exploitation and in the preparation of valuable scientific contributions for publication in the Academy's *Proceedings*.

Such a development can only be effected through the wise direction and economic management of a competent executive. In carrying it out Dr. Dixon gained nothing but the satisfaction of a good work brought to completion, while it entailed on his part an amount of voluntary sacrifice of time and energy that few men feel like giving. These are facts that do not show on the surface and are easily forgotten, but they should not be lost sight of in estimating the value of such service.

In June, 1905, Dr. Dixon was appointed Commissioner of Health of Pennsylvania, and immediately began the development of the State department which stands to-day as his greatest monument. Through all these years he maintained his office at the Academy, and many of his plans, especially for the enlargement and improvement of the building, were carried to completion during the period when the multifarious duties of his larger office were such that most men would have found them alone impossible. Naturally, of late years with the activities and responsibilities of the Health Department ever increasing, Dr. Dixon was able to devote less and less time to the Academy, but the planning of earlier years had placed the institution on a basis upon which it ran smoothly and needed less and less the detailed attention of the executive. During his long connection with the Academy Dr. Dixon served upon many of its committees, being Chairman of the Building Committee and also of the Committee in charge of the Centenary Celebration in 1912.

In March, 1892, he was appointed to act for the Academy in conjunction with the State Board of Health in making a bacteriological exhibit at the World's Columbian Exposition at Chicago. He little thought at that time that he would in a few years be head of the department that was to supersede the State Board in caring for the health of the Commonwealth.

During the early nineties he made several communications and

presented several papers at the meetings of the Academy, dealing mainly with the development of *Bacillus tuberculosis*, but including also accounts of *Bacillus typhosis* and *Actinomyces* as well as of beri-beri and the bacteriological examination of drinking water. About this time, through his efforts, the Pennsylvania Antituberculosis Society made the Academy its meeting place and Dr. Dixon became its Vice-President, thus emphasizing his interest in what was to become one of his greatest achievements.

In 1898 Dr. Dixon was appointed on the Board of Public Education in Philadelphia and took an active part in improving the hygienic conditions in the city schools. He was Vice-President of the Zoölogical Society of Philadelphia, a Director of the Wistar Institute of Anatomy, trustee of the University of Pennsylvania, Fellow of the College of Physicians, Past President of the Pennsylvania State Medical Society and a member of numerous medical and scientific organizations. In 1909 the University of Pennsylvania conferred upon him the degree of Doctor of Laws, and in 1916 Lafayette College honored him with the degree of Doctor of Science.

In a life so fully occupied with duties of his official and executive position as was Dr. Dixon's there seemed literally no time for recreation. But in the rare moments when he did indulge in holiday trips or in days of rest in the beautiful country place which he had built at Black Rock, near Bryn Mawr, his deep interest in nature asserted itself. He was always quick to notice unusual birds, striking wild flowers or strange insects, and upon his return to the Academy would seek the aid of specialists in determining their identity and learning something of their history, usually adding some original suggestions as a result of his keen powers of observation. Horticulture, too, was a favorite hobby and the Rhododendron thickets and beds of rare plants that he succeeded in establishing at Black Rock Farm were a source of sincere pleasure and gratification to him.

His visits to the famous tuberculosis sanatorium which he had established at Mont Alto were always a great pleasure to him on account of the splendid mountain scenery and the beauty of the more intimate natural surroundings, of which, on his return, he never failed to speak. This love of nature was always in evidence, and from early youth he had delighted in hunting trips with gun and dogs, which led later to moose hunts in Maine and ducking trips to the clubs of the South Atlantic seaboard. But he indulged in such recreation far too little, especially during the later years of his life,

seeming to neglect in his own case the care that he was ever urging upon others to conserve their strength and health.

Even before his appointment as Health Commissioner those who were closely associated with Dr. Dixon were aware of the inroads that constant attention to his business and executive duties were making upon his health, and on several occasions he had suffered a temporary breakdown. His was a nature that must delve into all the details of every matter under consideration, to make sure that there was no possibility of mistake and that nothing had been overlooked. Praiseworthy as is such a practice, probably no constitution can stand it indefinitely, and in the work of the Department of Health it reached the limit of human endurance.

Even during his long illness, which began about the end of July last, Dr. Dixon's indomitable will continued to assert itself, and for a long while he continued to direct the affairs of his department from his sick bed and to consider the more important matters connected with the administration of the Academy. As time went on, however, he became less and less able to make such effort and the final rest from his labors came on February 26, 1918. Dr. Dixon was married in 1881 to Miss Fanny Gilbert, and she and a daughter, Catharine H. Dixon, survive him.

Dr. Dixon had held the office of President of this Academy longer than any other incumbent, with one exception, having just been elected for his twenty-third term, and no other President had seen, during his administration, such a physical expansion and development of the institution. These things speak for themselves and bear testimony of his executive ability and his devotion to the Academy. To the country at large his work as Commissioner of Health is his monument, and he will stand for all time as an example of the highest ideal of faithful service in public office and as an unselfish benefactor of the people in his campaign for public health.

To those of us who knew him here in the halls of the Academy, however, there will always be memories of the personal side of his relations to the institution and to the staff—his kindness and sympathy, his interest in the work of every individual, and back of it all that constant desire, ever present, ever conspicuous, to advance the Academy's interests and to meet its needs as he saw them; a service, like that rendered as Commissioner of Health, which brought greater benefits to others than it did to himself.